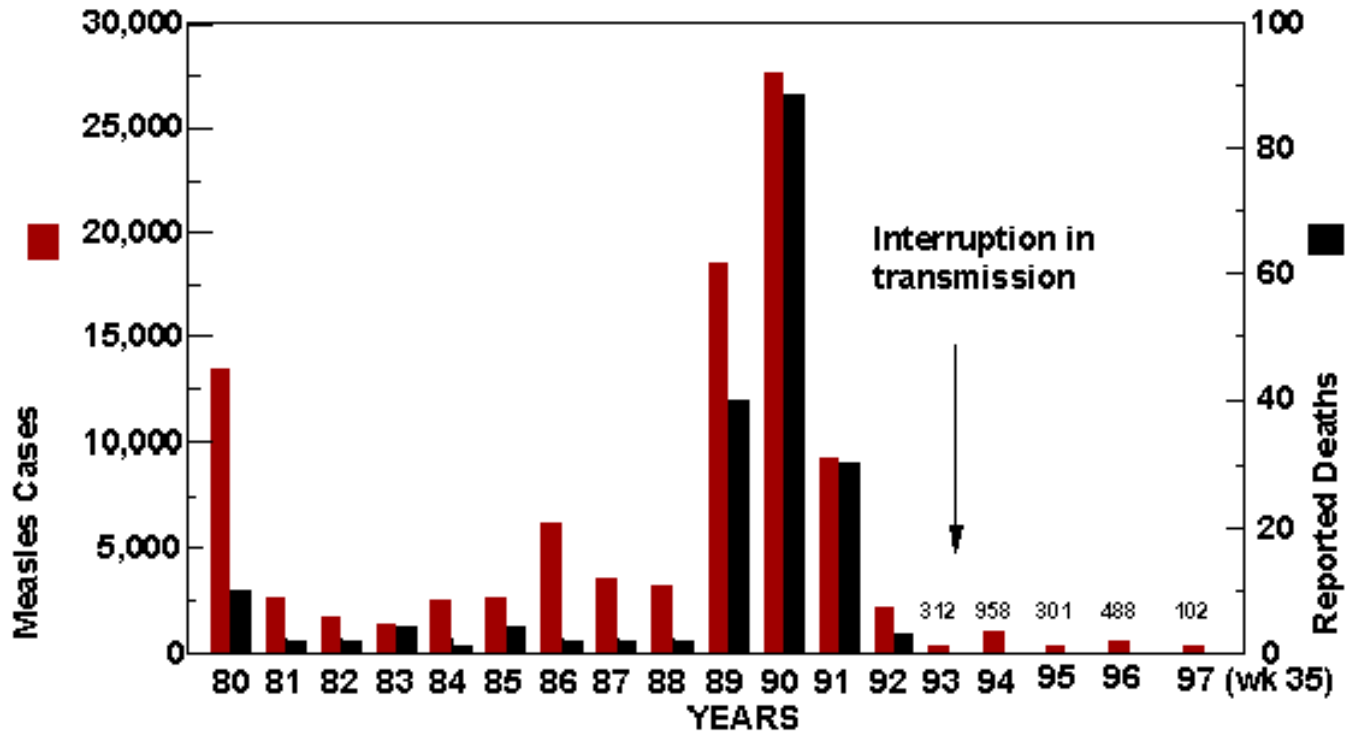


# The California Immunization Registry: Where Are We Now And Where Are We Going

Steve Nickell, PhD, Acting Chief  
Registry and Assessment Section  
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California Department of Public Health

# U.S. Measles Outbreak-1989-91



# U.S. Immunization Information Systems (IIS) History

- Response to measles outbreak in 1998-1991
- All Kids Count (Robert Wood Johnson)
  - Develop immunization monitoring and follow-up systems as a strategy to improve and sustain immunization coverage rates
  - 39 grantees
    - 17 state health departments
    - 21 local/city health departments



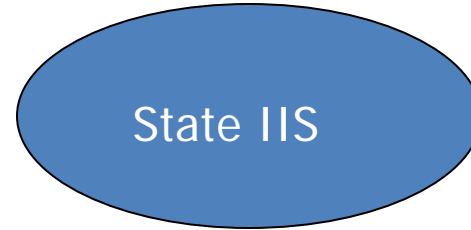
# CA All Kids Count/ RWJ Foundation Grantees, 1991-2004

- 9 of 38 original participants were CA counties:
  - County of Orange, 1992-1998
  - San Bernardino County, 1992-2000
  - San Diego County, 1992 -1998
  - San Luis Obispo County, 1992-1998
  - Santa Barbara County, 1992-1998
  - Santa Clara County, 1998-2004
  - Santa Cruz County, 1992-1998
  - Los Angeles County, 1992-1998
  - Monterey County, 1992-1998



# IIS Models

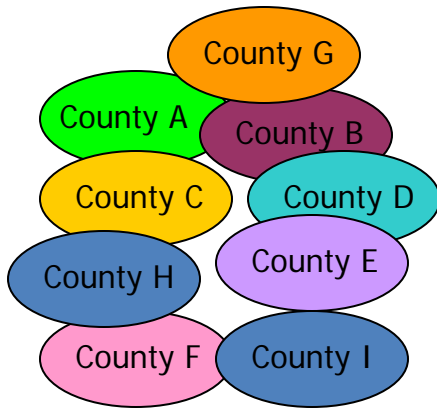
- Most states have implemented a single IIS
- But California is different.....



"CALIFORNIA IS BROKE, BUT IF THE NEW POT PROPOSAL PASSES, NO ONE WILL CARE."

# CA IIS Model

Counties  
1990s



10 'Regions'  
2000s



1 'CAIR'  
2010s



# CAIR/IIS Features

- Consolidate immunizations into a single record
- Provide definitive information on immunizations due or overdue
- Provide reminders when an immunization is due or overdue
- Provide current recommendations and information on new vaccines
- Help manage vaccine inventory
- Generate a variety of reports including coverage reports, e.g. HEDIS
- Reduce paperwork
- Help identify high-risk populations and under-immunized populations
- Prevent unnecessary (duplicative) immunizations
- Helps control vaccine-preventable diseases

# CAIR Highlights

- **New Leadership**

- CAIR now housed in new IZ Branch Section - Registry and Assessment - with new Section Chief
- Greater Expectations – quarterly performance ‘metrics’ were instituted in 2009 to monitor regional progress
- Increase Efficiency – population-based funding, encourage ‘regional’ rather than ‘jurisdictional’ perspective, greater % FTE commitment by regional staff





# CAIR Activity: VFC Recruitment as of April, 2010

Total # of VFC Providers <sup>&amp;</sup>	3,803
# of VFC Providers Enrolled	2,049
% of VFC Providers Enrolled	53.9%
# of New VFC Providers Enrolled (% Increase since April, 2009)	191 (+5%)

<sup>&</sup> Received  $\geq$  1 VFC dose in 2009

# CAIR Activity: Patient Search Activity

## Jan-Mar 2010

Total # of Patient Look-ups	32,823,161
Total # of R/W Sites	3,987
Patient Look-ups per R/W Site per Day	137
Patient Look-ups per Minute (work hours)	1,140

# 2010 Health People Objective

- **14-26. Increase the proportion of children who participate in fully operational population-based immunization registries.**

**Target:** 62<sup>1</sup> percent of children under age 6 years.

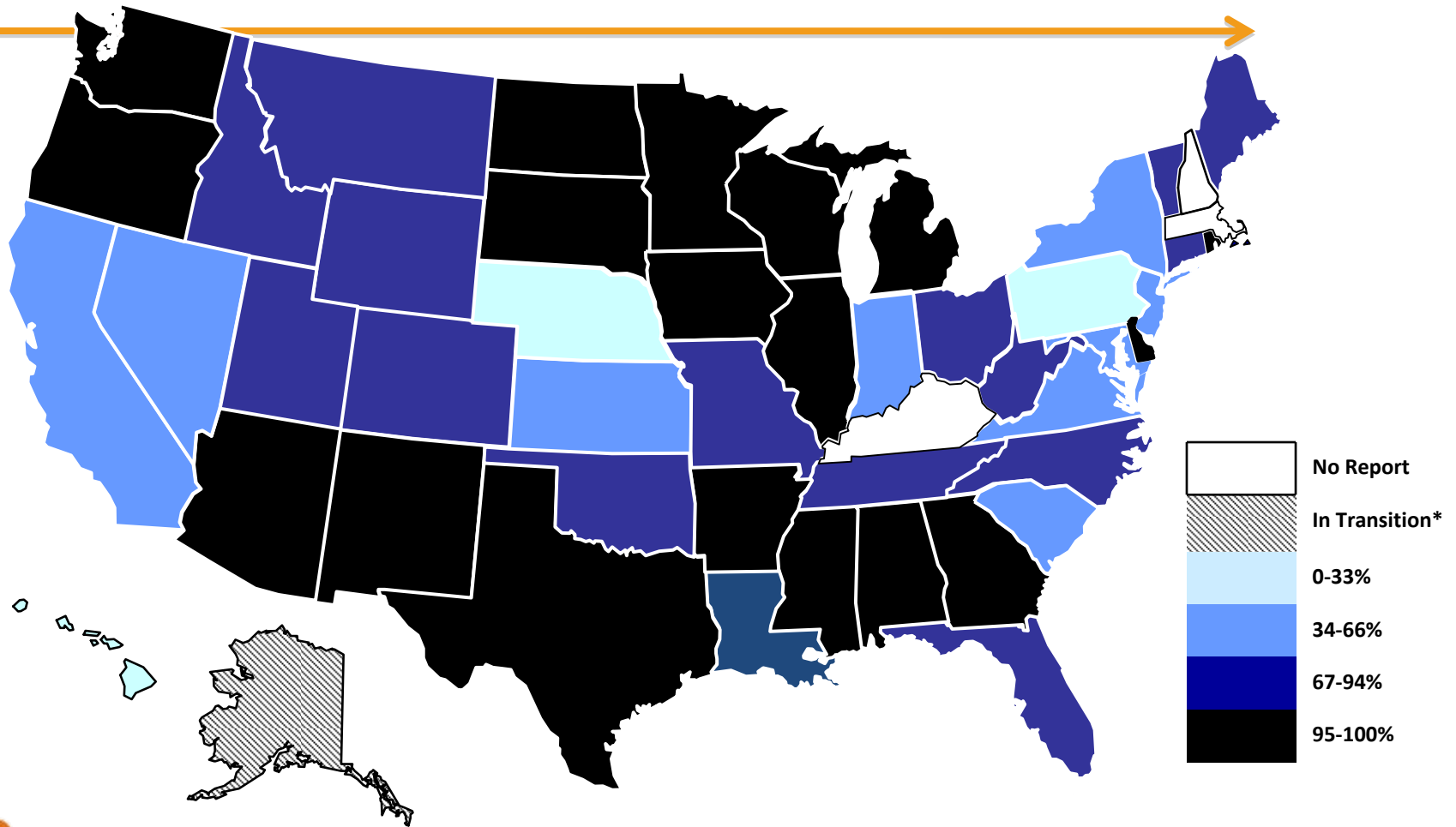
**Data source:** Immunization Program Annual Reports, CDC, NIP.

<sup>1</sup> Target revised from 95% after November 2000 publication.

# Current CAIR Status as of April, 2010

	0-5 yrs	6-18 yrs	19+ yrs	All Ages
CA Population	3,272,863	7,292,336	27,938,390	<b>38,503,589</b>
# of Patients In	2,247,245	3,923,679	2,404,081	<b>8,575,005</b>
% of Patients In	68.7%	53.8%	8.6%	<b>22.3%</b>
Doses In	26,631,150	53,355,929	12,459,805	<b>92,446,884</b>
Doses /Patient	11.9	13.6	5.2	<b>10.8</b>
Patients w/ >2	1,569,071	2,956,717	1,255,504	<b>5,781,292</b>
% Pop w/ >2	<b>47.9%</b>	40.5%	4.5%	<b>15.0%</b>

**FIGURE 2. Percentage of children aged < 6 years participating in a grantee immunization information system (w/≥ 2 doses)-- United States, 2008**



# CAIR Activity: 'New' Vaccine Doses Added - Jan-Mar 10

	0-5 yrs	6-18 yrs	19 yrs and older	ALL Ages
# of 'New' Doses Entered	2,220,087	1,354,180	364,283	3,938,550
% of 'New' Doses That Were Not Transcribed <sup>#</sup>	44.0%	27.3%	72.0%	40.4%
# of R/W Sites	3,987			
# of R/W Sites that Entered $\geq$ 1 Dose	2,268			
# and % of R/W Sites That Did Not Enter a Single Dose	1,719 (43%)			

<sup>#</sup> Data does not include San Joaquin and SD regions



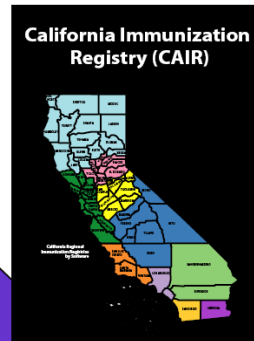
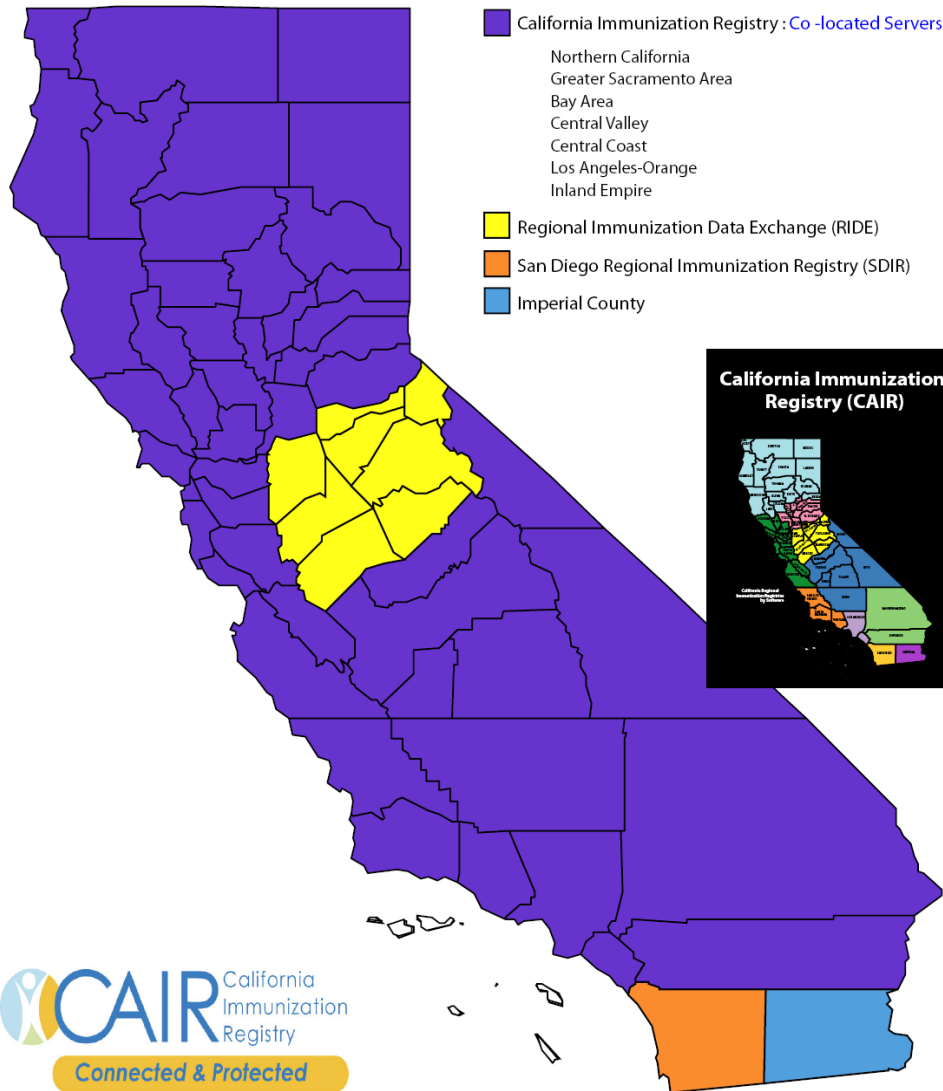
# CAIR Highlights

- **Regional Consolidation**

- Inland Empire region (VaxTrack) converted to CAIR software use, leaving only San Joaquin and San Diego regions using their own software.
- 7 regional database servers running the CAIR software were physically co-located and are being managed by the CAIR Technical Team.
- 7 co-located regional databases represent areas where 88% of CA's children live



# California Immunization Registry (CAIR) By Colocated Servers



California Department of Public Health, Immunization Branch  
850 Marina Bay Parkway, Building P, 2nd Floor, Richmond, CA 94804  
www.cairweb.org (510) 620-3737

July 2009





# CAIR Highlights

- **Expanded Staffing:**

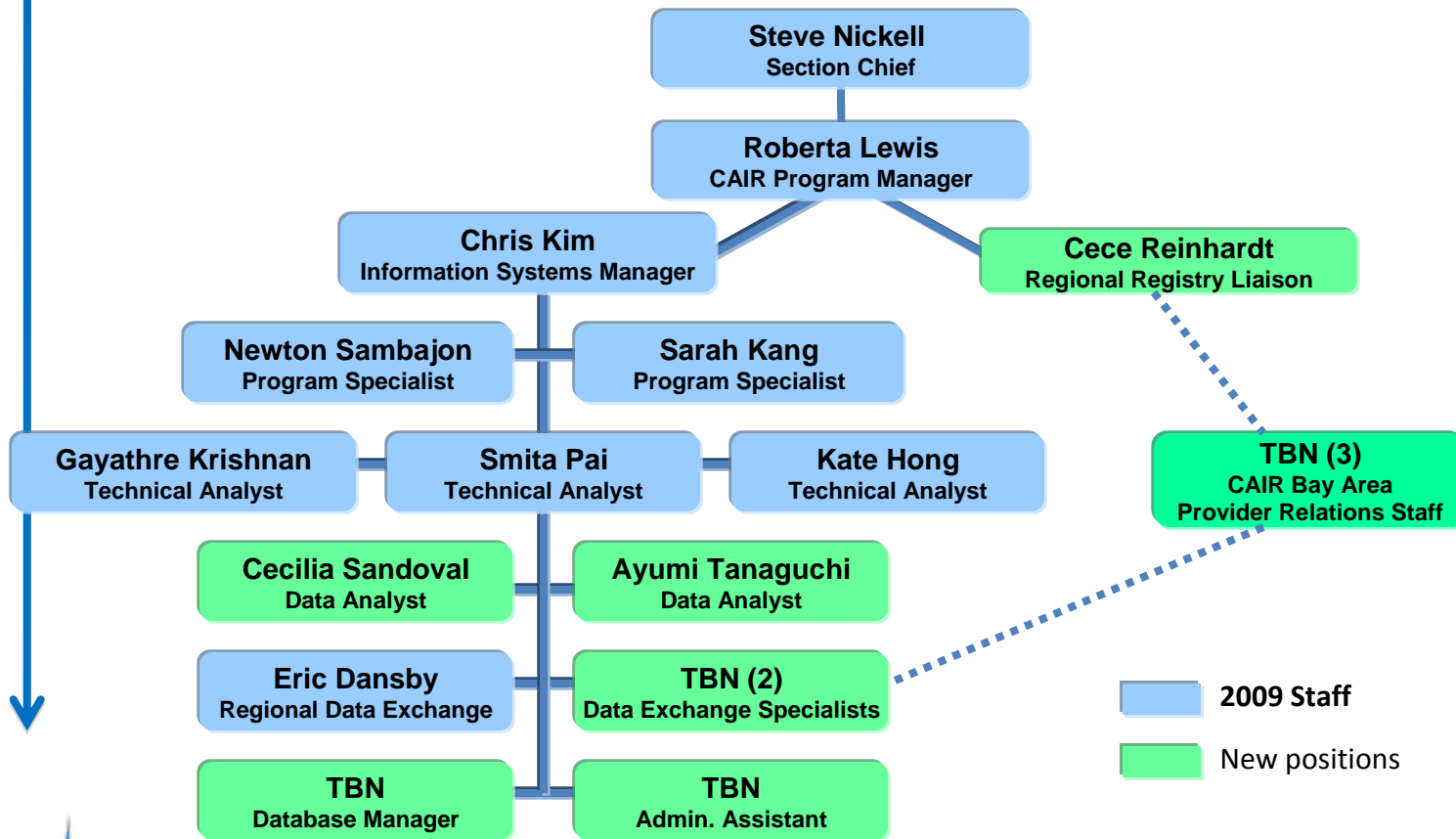
- **CAIR Technical Team**

- To accommodate the transfer of regional responsibilities for database management and increasing level of electronic data exchange
- Outgrown space in Richmond - most of the CAIR Team have moved to a new space in Walnut Creek


- **BAY AREA Provider Support**

- Additional staff will be hired to provide CAIR Bay Area region with provider recruitment and support activities over the next FY

# CAIR Team, Registry and Assessment Section, CDPH IZ Branch



# Future Directions

- 
- Data consolidation to allow CAIR users to search patient records across regions
  - Expand electronic data exchange (HITECH) capabilities
    - Complete the CAIR Health Level 7 (HL7) Data Formatting Specifications
    - Develop Testing Environment
    - Automate patient merge processes
  - Centralize Help Desk support
  - Update the CAIR software and the CAIR user interface
  - Expand CAIR reporting capability
  - Add New features – e.g. School module, BT/mass vax module

# Ongoing Challenges

- Funding
- Preparing for the HITECH Initiative (2011-2016)
  - Incentive payments (\$45B) to Medicaid and Medicare providers who use a certified EHR to exchange health information (HIE)
  - IZ registries are among the qualifying partners for 'meaningful use' health information exchange
- Increasing (and retaining) provider participation

# Contact Info

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